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BULLETIN OF THE

AMERICAN MATHEMATICAL SOCIETY

EDITORS

Research-Expository Surveys

Research Announcements and Research Reports

Book Reviews

Nolan R. Wallach

Haynes R. Miller Managing Editor

Murray H. Protter

Bulletin (New Series) of the American Mathematical Society

This journal is devoted to articles of the following types:

Research-Expository Surveys

These are, by definition, papers that present a clear and insightful exposition of significant aspects of contemporary mathematical research. Gibbs lectures, Progress in Mathematics lectures, and retiring presidential addresses will be included in this section.

Research Announcements

The purpose of this department is to publish quickly and disseminate widely significant new mathematics. A Research Announcement should be designed to communicate its contents to a broad mathematical audience and should meet high standards for clarity as well as mathematical content.

Research Reports

These are brief, timely reports on important mathematical developments. They are normally solicited and often written by a disinterested expert.

Book Reviews

Book Reviews are accepted for publication by invitation only. Unsolicited manuscripts will not be considered.

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As of March 31, 1995, the backlog for this journal was approximately 0 issues. This estimate is the result of dividing the number of manuscripts for this journal in the Providence office that have not yet gone to the printer on the above date by the average number of articles per issue over the previous twelve months, reduced by the number of issues published in four months (the time necessary for editing and composing a typical issue).

A Copyright Transfer Agreement is required before a paper will be published in this journal. By submitting a paper to this journal, authors certify that the manuscript has not been submitted to nor is it under consideration for publication by another journal, conference proceedings, or similar publication.

Information to Authors and Editors

For Research-Expository Surveys and Research Reports, the first page must consist of a *descriptive title*, followed by an *abstract* that summarizes the article in language suitable for workers in the general field (algebra, analysis, etc.). The *descriptive title* should be short but informative; useless or vague phrases such as "some remarks about" or "concerning" should be avoided. The *abstract* should be a brief technical description of the new material. Then, for Research Reports there should be an introductory section addressed to nonexperts describing the motivation, background, and significance of the results announced. Following the statement of results, there should be a sketch of proofs that may be

addressed to experts. For Research-Expository Surveys and Research Reports, included with the footnotes to the paper, there should be the 1991 Mathematics Subject Classification representing the primary and secondary subjects of the article. This may be followed by a list of key words and phrases describing the subject matter of the article and taken from it. A list of the numbers may be found in the annual index of Mathematical Reviews, published with the December issue starting in 1990, as well as from the electronic service e-MATH [telnet e-MATH.ams.org (or telnet 130.44.1.100). Login and password are e-math.] For journal abbreviations used in bibliographies, see the list of serials in the latest Mathematical Reviews annual index. Authors are encouraged to supply electronic addresses when available. These will be printed after the postal address at the end of each article.

TeX files available upon request. Authors may request a copy of the TeX files of their papers by sending e-mail to file-request@math.ams.org or by contacting the Editorial Department, American Mathematical Society, P.O. Box 6248, Providence, RI 02940-6248. The request should include the title of the paper, the name(s) of the author(s), the name of the publication in which the paper has or will appear, and the volume and issue numbers if known. The TeX file will be sent to the author making the request after the article goes to the printer. If the requestor can receive Internet e-mail, please include the e-mail address to which the file should be sent. Otherwise please indicate a diskette format and postal address to which a disk should be mailed. Note: Because TeX production at the AMS sometimes requires extra fonts and macros that are not yet publicly available, TeX files cannot be guaranteed to run through the author's version of TeX without errors. The AMS regrets that it cannot provide support to eliminate such errors in the author's TeX environment.

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Copies of the paper should be sent directly to the appropriate Editor, and the author should keep one copy. For Research-Expository Surveys two copies of the manuscript should be submitted to Professor Nolan R. Wallach, Department of Mathematics, University of California, San Diego, La Jolla, CA 92093-0001. For Research Reports, four copies of the manuscript should be submitted to Professor Haynes R. Miller, Room 2-237, Massachusetts Institute of Technology, Cambridge, MA 02139-4307. Research Reports can also be submitted electronically in AMS-TFX or AMS-IATFX to bams@math.mit.edu.

Any inquiries concerning a paper that has been accepted for publication should be sent directly to the Editorial Department, American Mathematical Society, P. O. Box 6248, Providence, RI 02940-6248.

Research-Expository Surveys

This section is intended for reasonably broad expository surveys of a currently active area of mathematical research. To stress this fact, the name of the section has been changed from "Research-Expository Papers" to "Research-Expository Surveys". The level of exposition is expected to be such that a graduate student—or a research mathematician from a remote area—will be able to read an article in order to get an overview of a subject. A well-written article will include motivating problems and examples, some indication of the historical development of the subject, and of course the results and open problems that make it an interesting and exciting area of mathematics. In most cases proofs should be at most briefly sketched, and there should be a good bibliography whose main aim should be helping those wishing to pursue the subject further. Usually Research-Expository Surveys will be at most 40 pages long.

Certain of the Society's Lecture Series, including the Gibb's Lectures, Colloquium Lectures, and Progress in Mathematics Lectures, traditionally appear in the Research-Expository Surveys, and those invited to give these lectures are informed of this tradition and of the above guidelines. Research-Expository Surveys are also frequently solicited by the Editorial Board, but unsolicited manuscripts are also encouraged; in particular, those invited to give invited hour addresses at meetings of the Society should consider writing up their

lecture in a manner that meets the requirements of the preceding paragraph and submitting their manuscripts for consideration by the Editorial Board for the Research-Expository Surveys.

Research Reports

In August 1993, the Council of the AMS voted to replace the Research Announcements with a new category of articles, to be called Research Reports. The first Research Reports are expected to be published in the October 1995 issue. The *Bulletin* stopped accepting submissions of Research Announcements on January 31, 1994. The Editor for Research Announcements will continue to serve as Editor for Research Reports.

A Research Report is a timely, short (4–8 pages) report on a recent accomplishment in mathematical research. It should be written so as to be understandable by mathematicians who are not experts in the subject matter of the Report. The context giving significance to the research being reported on should be made clear, and the consequences or potential consequences should be described. Usually only the barest hint of the methods of proof should be given, although elements of the proof which are novel should be included. In any case, references should be given so that an interested reader can find the details. It is expected that Research Reports will frequently be written by specialists other than the individuals immediately involved in the research. Approximately twenty-four Reports will be published each year.

Research Reports are normally solicited by the Editor for Research Reports and the Board of Associate Editors. They cordially invite suggestions for topics and reporters. Unsolicited manuscripts, submitted to the Editor for Research Reports, will also be considered.

Electronic Research Announcements of the AMS

The American Mathematical Society's first electronic journal, *Electronic Research Announcements of the AMS*, which will replace the Research Announcements section of the *Bulletin*, is now accepting papers. Further details on how to submit papers to *ERA-AMS* can be found on the *ERA-AMS* WWW page at the URL:

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ERA-AMS will quickly publish high-quality research announcements (up to about 10 journal pages) of significant advances in all branches of mathematics. All papers will be reviewed. Authors may submit manuscripts to any Editor. The entire Editorial Board must approve the acceptance of any paper.

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